7 2
~~14~~. (original) The waveguide structure of claim ~~8~~, wherein a taper angle of the interconnection structure is no greater than 0.4 degrees.

8 2
~~15~~. (original) The waveguide structure of claim ~~8~~, wherein the EO polymer waveguide and the passive polymer waveguide are formed as rib structures.

9 2
~~16~~. (original) The waveguide structure of claim ~~8~~, wherein the EO polymer waveguide has a higher refractive index that the passive polymer waveguide.

10 2
~~17~~. (original) The waveguide structure of claim ~~8~~, wherein the passive polymer waveguide has a larger mode profile than the EO polymer waveguide.

18-19. (canceled)

11 2
~~20~~. (original) The waveguide structure of claim ~~8~~, wherein the passive polymer waveguide comprises a fluorinated polymer.

12 2
~~21~~. (original) The waveguide structure of claim ~~8~~, wherein the passive polymer waveguide comprises a fluorinated acrylate.

13
~~22~~. (new) A method of operably interconnecting an electrooptic (EO) polymer waveguide and a passive polymer waveguide, comprising:

providing a tapered electrooptic (EO) polymer waveguide interconnection structure between an EO polymer waveguide and a passive polymer waveguide, the passive polymer waveguide including a fluorinated acrylate.

14
~~23~~. (new) A waveguide structure, comprising:

an electrooptic (EO) polymer waveguide;

a passive polymer waveguide including a fluorinated acrylate; and

a tapered EO polymer waveguide interconnection structure between the EO polymer waveguide and the passive polymer waveguide.

15 14
~~24~~. (new) The waveguide structure of claim ~~23~~, wherein the EO polymer waveguide and the passive polymer waveguide provide single mode propagation, and the interconnection structure provides a coupling between the two waveguides without higher order mode coupling.

16 14
~~25~~. (new) The waveguide structure of claim ~~23~~, wherein an interconnection loss associated with the interconnection structure is less than 0.4 dB.

17 14
~~26~~. (new) The waveguide structure of claim ~~23~~, wherein the interconnection structure is vertically tapered.

18 14
~~27~~. (new) The waveguide structure of claim ~~23~~, wherein a taper length of the interconnection structure is 300 μm or more.

19 14
~~28~~. (new) The waveguide structure of claim ~~23~~, wherein a taper angle of the interconnection structure is no greater than 0.4 degrees.

20 14
~~29~~. (new) The waveguide structure of claim ~~23~~, wherein the EO polymer waveguide and the passive polymer waveguide are formed as rib structures.

21 14
~~30~~. (new) The waveguide structure of claim ~~23~~, wherein the EO polymer waveguide has a higher refractive index that the passive polymer waveguide.

22 14
~~31~~. (new) The waveguide structure of claim ~~23~~, wherein the passive polymer waveguide has a larger mode profile than the EO polymer waveguide.

23 14
~~32~~. (new) The waveguide structure of claim ~~23~~, wherein the EO polymer waveguide comprises a nonlinear chromophore.

24 23
~~33~~. (new) The waveguide structure of claim ~~32~~, wherein the nonlinear chromophore includes a tricyanobutadiene acceptor and a phenyltetraene bridge.